

MANY ORMATION DISCLOSURE STATEMENT

Case Name.
Serial No.
Applicant:
Filing Date:
Group:

E.D. Isaacs 3-6
10/797399
E.D. Isaacs, et al.
March 10, 2004
2881 2 2 /

## **U.S. PATENT DOCUMENTS**

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
ca_	AA	5598172	1/28/1997	Claude Chekroun	343	754	11/5/1991
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## **FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Subclass	Translation
60	AB	DE 4119518	1/8/1998	Germany	H01Q	15/04	No ·
ca	AC	FR 2747842	6/15/1990	France	H01Q	3/46	No
	1						

OTHER (including Author, Title, Date, Pertinent Pages, etc.)

	<b>U</b> .	TEH (moldaling Additor, Thio, Buto, Fortinoit Fages, Clos)
æ	AD	R. A. Shelby, et al, "Experimental Verification of a Negative Index of Refraction", <i>Science</i> , vol. 292, (4/6/01), pp. 77-79.
æ	AE	R. A. Shelby, et al, "Microwave Transmission Through a Two-Dimensional, Isotropic, Left-Handed Metamaterial", <i>Applied Physics Letters, American Institute of Physics, New York</i> , vol. 78, no. 4, (1/22/01), pp. 489-491.
a	AF	Lixin Ran, et al, "Beam Shifting Experiment for the Characterization of Left-Handed Properties", Journal of Applied Physics, vol. 95, no. 5, (3/1/04), pp. 2238-2241.
a	AG	Chekroun Claude, "Microwave Lens With Panel of Stacked Phase Shifting Channels," Abstract of French Patent FR 2747842, (10/24/1997), published at esp@cenent online database, 1 page.
C-	AH	European Search Report for Appl. No. 05251005.4-1248-, (5/30/05).

<sup>\*\*\*</sup>References listed beyond AZ would list as AA-1, AB-2, AC-3 thru AZ-26.

EXAMINER	DATE CONSIDERED
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<sup>\*\*\*</sup>Note First Page ONLY Header/Footer. Subsequent pages must ONLY have page # layout as header

<sup>\*</sup>Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

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INFORMATION DISCLOSURE STATEMENT	Applicant:	E.D. Isaacs, et al.
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·	Group:	2821

**U.S. PATENT DOCUMENTS** 

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
ے	AA	6,597,318	7/22/2003	Parsche et al.	343	700	6/27/2002
Ca	AB	6,621,448	9/16/2003	Lasky et al.	342	22	4/5/2002
Co	AC	6,661,392	12/9/2003	Isaacs et al.	343	911	3/4/2002
10	AD	2002/0175693	11/28/2002	Starr et al.	324	702	5/23/2002
ce	AE	6,002,368	12/14/1999	Faraone et al.	343	700	6/24/1997
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Ce	AM	WO 03/054592	7/3/2003	PCT	G02B	5/30	
ae-	AN	WO 03/087904 -	10/23/2003	PCT	G02B	6/12	
00-	AO	GB 2 387 031	10/1/2003	Great Britain	H01Q	1/36	

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ce	AQ	Shelby, R.A. et al., "Experimental Verification of a Negative Index of Refraction," Science, Vol. 292, pp. 77-79, April 6, 2001.
ce	AR	Kolinko, P. et al., "Numerical study of electromagnetic waves interacting with negative index materials," Optics Express, Vol. 11, No. 7, pp. 640-648, April 7, 2003.
Ce	AS	Shelby, R.A. et al., "Microwave transmission though a two-dimensional, isotropic, left-handed metamaterial," Applied Physics Letters, Vol. 78, No. 4, pp. 489-491, January 22, 2001.
ce	AT	Grbic, A. et al., "Experimental verification of backward-wave radiation from a negative refractive index metamaterial," Journal of Applied Physics, Vol. 92, No. 10, pp. 5930-5935, November 15, 2002.
ca	AU	Eleftheriades, G.V. et al., "Planar Negative Refractive Index Media Using Periodically L-C Loaded Transmission Lines," IEEE Transactions on Microwave Theory and Techniques, Vol. 50, No. 12, pp. 2702-2712, December 2002.

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1	AV	Eleftheriades, G.V., et al., "Transmission Line Models for Negative Refractive Index Media and
	` ` `	Associated Implementations Without Excess Resonators," IEEE Microwave and Wireless
ce-	l	Components Letters, Vol. 13, No. 2, pp. 51-53, February 2003.
	AW	Pendry, J.B., "Negative Refraction Makes a Perfect Lens," Physical Review Letters, Vol. 85, No. 18,
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	AZ	Pendry, J.B., "Magnetism from Conductors and Enhanced Nonlinear Phenomena," IEEE Transactions
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	AA-1	Sievenpiper, D.F. et al., "3D Metallo-Dielectric Photonic Crystals with Strong Capacitive Coupling
ce		between Metallic Islands, Physical Review Letters, Vol. 80, No. 13, pp. 2829-2832, March 30, 1998.
	AA-2	Wiltshire, M.C.K., "Bending Light the Wrong Way," Science, Vol. 292, No. 5514, pp. 60-61, April 6,
a		2001.
	AA-3	Smith, D.R. et al., "Composite Medium with Simultaneously Negative Permeability and Permittivity,"
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	AA-5	Smith, D.R. et al., "Loop-wire Medium for Investigating Plasmons at Microwave Frequencies," Applied
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	AA-7	Meeting Invitation for "Darpa Meta-Materials Workshop, September 29, 2000," published online at :
Ce		http://sainc.com/conference/View/Invitation.asp, Greenbelt, MD, 2 pages.
	AA-8	UCSD Press Release, "UCSD, Physicists Develop New Class of Composite Materials with 'Reversed'
ce		Physical Properties Never Before Seen," Press Conference, Minneapolis, MN, March, 2001, 3 pages.
12	AA-9	Left Handed Materials, published online by USD at:
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<sup>\*\*\*\*</sup>References listed beyond AZ would list as AA-1, AB-2, AC-3 thru AZ-26.
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